

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/073,931	02/14/2002	Bharat Tarachand Doshi	Doshi 52-2-17-18-1-1	Doshi 52-2-17-18-1-1 5324	
7590 05/22/2006		EXAMINER			
Harness Dickey & Pierce PLC P O Box 8910			LESTER, EVELYN A		
Reston, VA 20195			ART UNIT	PAPER NUMBER	
			. 2873		

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

				AI .
		Application No.	Applicant(s)	A
Office Action Summary		10/073,931	DOSHI ET AL.	
		Examiner	Art Unit	
		Evelyn A. Lester	2873	
Period fo	The MAILING DATE of this communication app or Reply	pears on the cover sheet with the c	orrespondence addre	ss
A SH WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DANSIONS of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. Operiod for reply is specified above, the maximum statutory period were to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE	J.  nely filed  the mailing date of this commit  D (35 U.S.C. § 133).	·
Status				
2a)⊠	Responsive to communication(s) filed on 3-1-0 This action is <b>FINAL</b> . 2b) This Since this application is in condition for allowar closed in accordance with the practice under E	action is non-final. nce except for formal matters, pro		erits is
Dispositi	ion of Claims			
5) [	Claim(s) 1-15 is/are pending in the application.  4a) Of the above claim(s) is/are withdraw Claim(s) is/are allowed.  Claim(s) 1-15 is/are rejected.  Claim(s) is/are objected to.  Claim(s) are subject to restriction and/or ison Papers	vn from consideration.		
· · _	·	_		
10)⊠	The specification is objected to by the Examine The drawing(s) filed on <u>14 February 2002</u> is/are Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction The oath or declaration is objected to by the Ex	e: a) accepted or b) objected or b) objected or b) objected drawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CFR 1	I.121(d).
Priority ι	ınder 35 U.S.C. § 119			
a)[	Acknowledgment is made of a claim for foreign  All b) Some * c) None of:  1. Certified copies of the priority documents  2. Certified copies of the priority documents  3. Copies of the certified copies of the prior application from the International Bureau  See the attached detailed Office action for a list of	s have been received. s have been received in Applicati rity documents have been receive a (PCT Rule 17.2(a)).	on No ed in this National Sta	ge
	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948)	4) ☐ Interview Summary Paper No(s)/Mail Da		
3) 🔲 Inforr	nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) r No(s)/Mail Date	5) Notice of Informal P 6) Other:		2)

### **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 4-6, 9-11, 14 and 15, as far as these claims are understood, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Fee et al (U.S. patent 5,726,788).

Fee et al disclose the claimed invention of a connection device or router, and the method for providing an optical, service-enabled connection, comprising one or more processing units (f1-f7) and an optical switch (308) for receiving "non-processed" optical signals and to connect at least one of the units to one or more optical signals based on a characteristic of each signal.

With respect to claims 4, 5, 9, 11 and 14, please note Figures 3 and 7, and their accompanying text, especially at column 4, line 30 to column 5, line 19, as well as column 5, line 64 to column 6, line 7; column 7, lines 1-5; lines 24-32 and lines 56-63; and column 8, lines 13-39.

# Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2, 7, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al (U.S. patent 5,726,788) in view of Wong et al (U.S. patent 6,624,927 B1).

Fee et al disclose the claimed invention as described above, except for explicitly including various specific processing units, such as a Raman pump. Fee et al does teach various examples of processing units, in a "non-exclusive representative list," as noted at column 4, line 46 to column 5, line 10. Fee et al further teaches in that non-exclusive list the use of an amplifier (col. 4, lines 49-50) and/or pump insertion (col. 4, lines 58-59) processing units, as part of necessary signal processing functions. Wong et al teaches that it is well known to utilize a Raman pump for the purpose of amplifying optical signals in an optical communications network, so that the power of the signals is maintained at a constant level, thereby avoiding signal degradation due to lost signal power. Wong et al further teaches that various Raman pumping arrangement may be used to pump any suitable optical fiber communications system, such as fiber in optical network equipment including add/drop modules or optical switches (Wong et al at col. 3, lines 49-59). Therefore, it would have been well known to one of ordinary skill in the art to utilize the well known Raman pump of Wong et al for the purpose of amplifying

Art Unit: 2873

optical signals and/or pump insertion, thereby providing necessary signal processing functions as taught by Fee et al. Please also especially note Fee et al at column 2, line 33 to column 3, line 16.

3. Claims 3, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al (U.S. patent 5,726,788) in view of Sharma et al (6,331,906 B1).

Fee et al disclose the claimed invention as described above, except for explicitly including various specific processing units, such as an optical-electrical-optical regenerator. Fee et al does teach various examples of processing units, in a "nonexclusive representative list," as noted at column 4, line 46 to column 5, line 10. Fee et al further teaches in that non-exclusive list the use of a modulation reshaper and the need for a regenerating process operation (note col. 4, lines 5-17), as part of necessary signal processing functions. Sharma et al teaches that it is well known to utilize an optical-electrical-optical regenerator for the purpose of reshaping optical signals in an optical communications network through techniques for restoration of network services in the event of a failed fiber link (e.g. a break in a fiber or a failure of an active element such as a fiber amplifier) and the use of optical switching to affect such restoration (note Sharma et al at col. 1, lines 53-58). Therefore, it would have been well known to one of ordinary skill in the art to utilize the well known optical-electrical-optical regenerator of Sharma et al for the purpose of reshaping optical signals and affecting signal restoration, thereby providing necessary signal processing functions as taught by Fee et al. Please also especially note Fee et al at column 2, line 33 to column 3, line 16.

## Response to Arguments

4. Applicant's arguments filed 8-31-05 have been fully considered but they are not persuasive.

In response to the Applicant's argument that the deletion of the terms, "non-processed" overcomes the indefiniteness, i.e. the rejection made under 35 U.S.C. 112, first paragraph, is well received. The indefinite rejection is hereby withdrawn.

In response to the Applicant's argument that Fee et al fails to teach or suggest a connection device that comprises an optical switch for receiving optical signals to connect at least one processing unit to one or more received signals based on a characteristic of each signal is not well received by the Examiner. Fee et al discloses an optical switch for receiving optical signals to connect at least one processing unit to one or more received signals based on a characteristic of each signal, as noted in the above rejection, in that the "functions f1-f7" are processing units. Again, note Fee et al at column 5, lines 11-19. "[O]ptical functions" is but another label for processing units, wherein the optical functions are the same as the Applicant's processing units. The rejection is hereby maintained.

In response to the Applicant's argument that claims 1, 6 and 11 are allowable are not well met, for the reasons given above. Subsequently, the rejections made under 35 U.S.C. 103(a) of claims 2, 3, 7, 8, 12 and 13 are hereby maintained. There being no

Art Unit: 2873

other arguments from the Applicant for these rejections, no further response from the Examiner is required.

#### Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn A. Lester whose telephone number is (571) 272-2332. The examiner can normally be reached on subject to an increased flex schedule, M-F, 10-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on (571) 272-233333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/073,931

Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2873

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Evelyif A. Lester Primary Examiner Art Unit 2873

Page 7